

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
26 May 2005 (26.05.2005)

PCT

(10) International Publication Number
WO 2005/046841 A1

(51) International Patent Classification⁷: **B01D 46/52,**
F02M 35/024

(21) International Application Number:
PCT/US2004/037570

(22) International Filing Date:
10 November 2004 (10.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/519,574 12 November 2003 (12.11.2003) US

(71) Applicant (for all designated States except US): **DON-**
ALDSON COMPANY, INC. [US/US]; 1400 West 94th
Street, P.O. Box 1299, Minneapolis, MN 55440-1299 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **NEPSUND, Larry,**
R. [US/US]; 4957 Credit River Drive, Savage, MN 55378
(US). **KUEMPEL, Bradley, A.** [US/US]; 18232 Warbler
Lane, Eden Prairie, MN 55346 (US). **ENGEL, Donald,**
F. [US/US]; 6480 Glasgow Trail S.E., Prior Lake, MN

55372 (US). **BOEHRHS, Bruce, Allen** [US/US]; 1200
27th Avenue NE, Minneapolis, MN 55418 (US). **AN-**
DERSON, Sheldon [US/US]; 10232 10th Avenue Circle,
Bloomington, MN 55420 (US). **BUCHOLTZ, Richard,**
L. [US/US]; 781 143rd Avenue NW, Andover, MN 55304
(US). **CAMPBELL, Steve** [US/US] (US). **LUNDGREN,**
Thomas John [US/US]; 10213 Scarborough Road,
Bloomington, MN 55437 (US).

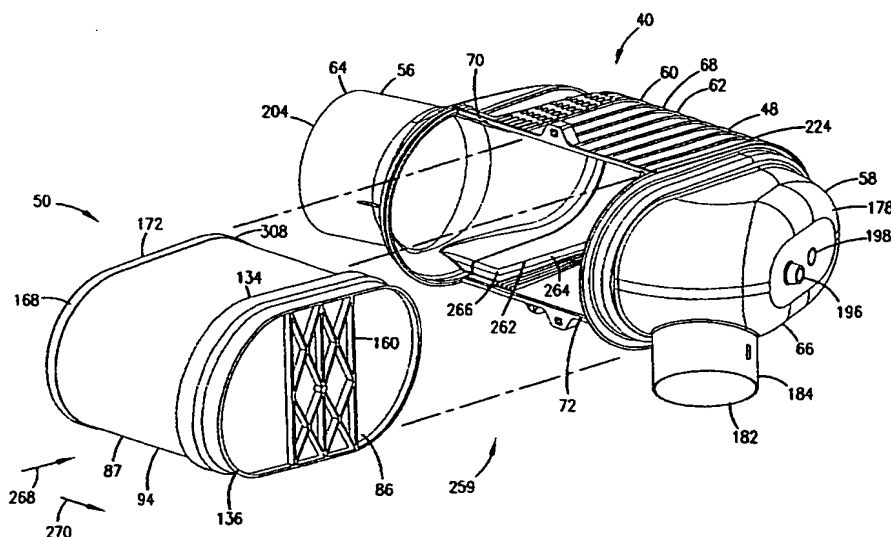
(74) Agent: **BRUESS, Steven, C.**; Merchant & Gould P.C.,
P.O. Box 2903, Minneapolis, MN 55402-0903 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: AIR FILTER WITH A SLIDE MOUNT FOR FILTERING ELEMENT



(57) Abstract: An air cleaner (40) includes a housing (48) and an access cover. The internal volume of the housing (48) can be reached through an opening (70) in a side wall of the housing. A filter element (50) having fluted filter media is removable and replaceable from the air cleaner. The housing (48) is constructed and arranged to cam the element (50) into sealing engagement with the housing (48). The access cover includes structure to help support and ensure proper seating of the filter element within the housing. A method of installing the filter element in the air cleaner includes sliding a portion of the filter element against a slide surface in the housing. A method of servicing an air cleaner includes pushing the filter element against a pivot region in the housing to release a seal between the filter element and the housing.



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.